

CLAIMS

1. In an Internet based network with a plurality of registered users, wherein each of said users can be a publisher to publish his information to others and/or a subscriber to subscribe shared information from others, a system for sharing digital resources
5 based on a publishing-subscribing model, comprising:

means for designating a subscriber as a member of a publisher's community;

means for creating groups within said publisher's community, each of said groups being based on a predefined sharing relationship between said publisher and the community members of said group; and

10 means for delivering different views of a resource to different groups based on different sharing relationships.

2. The system of Claim 1, wherein each member of said publisher's community belongs to any of:

one of said groups;

15 more than one of said groups; and

none of said groups.

3. The system of Claim 1, wherein said sharing relationships are based on any of:

a privilege to receive a copy of said resource from said publisher;

a privilege to read said resource in a central repository; and

a privilege to update said resource.

4. The system of Claim 1, wherein said means for making groups further comprises:

5 means for processing a non-subscriber user's request for sharing;

means for announcing availability of a view or views of said resource to one or more subscribers who have not yet subscribed to access said view or views;

means for processing any subscriber's request to join any of said groups; and

10 means for terminating a subscriber or a non-subscriber user from any of said sharing relationships.

5. The system of Claim 4, wherein said means for processing a non-subscriber user's request comprises an authorization for any of:

one-time sharing;

ongoing sharing;

15 reject; and

ignore.

6. The system of Claim 4, wherein said means for processing a subscriber's request further comprises:

means for automatically approving said subscriber's request.

7. The system of Claim 1, further comprising:

5 at least one publisher-agent on behalf of said publisher to serve as a gateway for all of said publisher's software applications to send out announcements and process all requests from subscribers and non-subscriber users;

 at least one subscriber-agent on behalf of a community member of said publisher to serve as a gateway for all of said community member's software
10 applications to process requests from said publisher and other subscribers.

8. The system of Claim 7, wherein said at least one publisher-agent automatically generates responses according to said publisher's preferences.

9. The system of Claim 7, wherein said at least one subscriber-agent automatically generates responses according to said community member's preferences.

15 10. The system of Claim 1, wherein whenever said resource is modified by said publisher any local copy of said resource accessible by any member of said publisher's community is automatically updated.

11. The system of Claim 1, further comprising a spam control mechanism, said mechanism comprising:

rate limiting policies;

rate limiting notification to a unique receiver;

restriction on number of publishes that can be made in a single transaction; and

restriction on notification messages.

- 5 12. A method for sharing digital resources through an Internet based network which has a plurality of registered users, wherein each of said users can be a publisher to publish his information to others and/or a subscriber to subscribe shared information from others, said method comprising the steps of:

 a publisher creating one or more views of a resource;

- 10 designating a subscriber as a member of said publisher's community;

 creating groups within said publisher's community, each group being based on a predefined sharing relationship between said publisher and the community members of said each group;

- announcing availability of one or more views of said resource to one or more
15 subscribers of said network;

 designating a subscriber who subscribes one or more views of said resource to one or more of said groups; and

 delivering different views of said resource to one or more of said groups based on different sharing relationships.

13. The method of Claim 12, wherein each member of said publisher's community belongs to any of:

one of said groups;

more than one of said groups; and

5 none of said groups.

14. The method of Claim 12, wherein said sharing relationships are based on any of:

a privilege to receive a copy of said resource from said publisher;

a privilege to read said resource in a central repository; and

a privilege to update said resource.

10 15. The method of Claim 12, wherein said step for making groups further comprises the steps of:

processing a non-subscriber user's request for sharing;

processing a subscriber's request to join any of said groups; and

15 terminating a subscriber or non-subscriber user from any of said sharing relationships.

16. The method of Claim 15, wherein said step for processing a non-subscriber user's request comprises a step to allow said non-subscriber user for any of:

one-time sharing; and

ongoing sharing.

5 17. The method of Claim 16, further comprising the steps of:

keeping said non-subscriber user's request as pending;

rejecting said non-subscriber user's request;

notifying said non-subscriber user the status of his request.

18. The method of Claim 15, wherein said step for processing a subscriber's request
10 comprises a step to allow said subscriber for any of:

one-time sharing; and

ongoing sharing.

19. The method of Claim 18, further comprising the steps of:

automatically approving said subscriber's request;

15 notifying said subscriber the status of his request.

20. The method of Claim 12, further comprising the steps of:

using at least one publisher-agent on behalf of said publisher to serve as a gateway for all of said publisher's software applications to send out announcements and process all requests from subscribers and non-subscriber users;

5 using at least one subscriber-agent on behalf of a community member of said publisher to serve as a gateway for all of said community member's software applications to process requests from said publisher and other subscribers.

21. The method of Claim 20, wherein said at least one publisher-agent automatically generates responses according to said publisher's preferences.

10 22. The method of Claim 20, wherein said at least one subscriber-agent automatically generates responses according to said community member's preferences.

23. The method of Claim 12, further comprising the step of:

15 whenever said resource is modified by said publisher, automatically updating any local copy of said resource accessible by any member of said publisher's community.

24. The method of Claim 12, further comprising a spam control step to set any of:

rate limiting policies;

rate limiting notification to a unique receiver;

restriction on number of publishes that can be made in a single transaction; and
restriction on notification messages.

25. In an Internet based network with a plurality of registered users, wherein each of
said users can be a publisher to publish his information to others and/or a subscriber
5 to subscribe shared information from others, a system for hosting an address card
service comprising:

means for a publisher to set up an address card having multiple views, each
of said views being associated with a different label which, when being clicked,
brings said associated view to the front of screen;

10 means for managing said address card, whereby said publisher designate a
sharing relationship to one or more groups of subscribers;

means for publishing said address card to a number of selected subscribers
based on different sharing relationships; and

means for updating local copies of said address card possessed by said
15 subscribers.

26. The system of Claim 25, wherein said address card comprises a page for
centrally entering said publisher's contact information, and wherein any of said
entered contact information is automatically populated to one or more of said views.

27. The system of Claim 26, wherein one of said views is designated as a default
20 view.

28. The system of Claim 25, wherein each of said views can be published separately or in combination with other one or more of said views.

29. The system of Claim 25, wherein each of said views is based on a template containing a set of predefined fields.

5 30. The system of Claim 25, wherein one or more of said views can be customized.

31. The system of Claim 25, wherein said means for setting up an address card further comprising:

a virtual button whereby said publisher sets his preferences; and

a virtual button whereby said publisher accesses help information.

10 32. The system of Claim 25, wherein means for managing said address card further comprising:

a virtual button whereby said publisher sets his preferences;

a virtual button whereby said publisher accesses help information;

15 a dropdown menu showing all categories of contacts in said publisher's address book;

a look up window for searching a subscriber by name;

a virtual button for adding a new contact;

a virtual button for editing said publisher's address card; and

a preview hyperlink for each view of said address card, said preview hyperlink linking to a list of subscribers selected for accepting said view.

33. The system of Claim 32, further comprising:

5 means for adding said publisher's self-expression elements into said address card.

34. The system of Claim 32, further comprising:

means for setting parental control to prevent children from handling said address card.

10 35. The system of Claim 25, wherein said publisher can view any of:

an accepted subscription;

a rejected subscription; and

a pending subscription.

15 36. The system of Claim 35, wherein said publisher can un-publish to any of said subscribers.

37. The system of Claim 36, wherein a publish offer lapses after a predefined period of time.

38. The system of Claim 25, wherein said means for publishing is any of:

an e-mail;

an immediate popup from an instant messaging system;

an indicator in an online address book; and

5 a popup at sign-on.

39. The system of Claim 25, wherein any of said subscribers receiving a publish offer may take any action of:

rejecting said offer;

accepting said offer by subscribing said publisher's address card; and

10 accepting said offer by subscribing said publisher's address card and at the same time reciprocating with a publish of said subscriber's address card to said publisher.

40. The system of Claim 39, wherein a recipient of a publish offer may choose from preferences to automatically subscribe any address card being offered.

15 41. The system of Claim 25, wherein when said publisher chooses to publish to a recipient who is not a registered member of said Internet based network, a notification along with an image of said publisher's address card is sent to said

recipient via e-mail, said notification comprising a first link which enables said recipient to subscribe future modifications of said publisher's address card.

42. The system of Claim 41, wherein said notification comprises a second link which enables said recipient to reciprocate said publisher with contact information.

5 43. The system of Claim 25, wherein said means for updating further comprising:

means for displaying said address card with all data fields editable so that said publisher modifies part or all of entered contact information;

a virtual button, by clicking which said publisher is prompted to a confirmation screen wherein said publisher decides whether or not to update said address card in
10 said selected subscribers based on different sharing relationships; and

a hyperlink which takes said publisher to a screen where said publisher can reset groups, sharing relationships and views of said address card.

44. The system of Claim 43, wherein said publisher can choose whether a modification on said publisher's address card triggers a notification to said selected
15 subscribers.

45. The system of Claim 44, wherein said notification comprises details of changes made to said publisher's address card.

46. The system of Claim 25, wherein said address card is incorporated into said publisher's address book from which said selected subscribers' e-mail addresses are extracted.

47. The system of Claim 46, wherein said address book comprises a virtual button,
5 by selecting a screen name from said address book and then clicking said virtual button, said publisher is prompted to a screen of an editable address card where said publisher completes the contact information of a new contact associated with said selected screen name.

48. The system of Claim 47, wherein when said publisher publishes to a recipient not
10 in said publisher's address book, said recipient's e-mail address is automatically added into said publisher's address book.

49. The system of Claim 47, wherein when said publisher deletes any of said subscribers from said publisher's address book, said deleted subscriber's subscription to said publisher's address card is terminated.

50. The system of Claim 49, wherein when a subscriber of said publisher's address
15 card chooses to delete said publisher's address card, said subscriber's subscription to said publisher's address card is terminated.

51. The system of Claim 47, wherein said screen of an editable address card comprises:

20 a drop down menu for setting a group for said new contact;

a save button for saving entered data; and

a hyperlink which takes said publisher to a screen for designating which view of said publisher's address card to be shared with said new contact.

52. The system of Claim 47, further comprising a screen wherein said publisher can
5 add a subscriber of said address card into said address book or remove a subscriber of said address card from said address book.

53. The system of Claim 52, wherein any registered user of said network who receives a copy of said publisher's address card in an e-mail can save said address card into said any registered user's address book by clicking an accept link
10 embedded in said e-mail.

54. The system of Claim 52, wherein any registered user of said network who receives a copy of said publisher's address card in an e-mail can save said address card into said any registered user's address book and at the same time share his own address card with said publisher by clicking an accept and share link embedded
15 in said e-mail.

55. The system of Claim 46, wherein said publisher may choose from preferences to automatically publish said publisher's default address card by sending a publish offer to anyone included in said publisher's address book.

56. The system of Claim 46, wherein information in said publisher's address card is
20 accessible from a current subscriber's address book either online or offline.

57. The system of Claim 46, wherein separately subscribed views of said publisher's address card are merged as a single entry in a subscriber's address book.

58. The system of Claim 46, further comprising:

means for detecting a duplicate entry of said publisher's screen name in a
5 subscriber's address book;

wherein when said duplicate entry is detected, said subscriber can choose to overwrite said duplicate entry with said publisher's address card or keep said publisher's address card as a separate entry.

59. The system of Claim 46, wherein when a subscriber forwards said publisher's
10 address card to a third party, a one-time copy of said publisher's address card is added to said third party's address book if said third party chooses to accept.

60. The system of Claim 59, wherein said publisher can set a parameter on said address card, preventing a subscriber from forwarding said address card.

61. The system of Claim 25, wherein a subscriber of said publisher's address card
15 can modify a local copy of said address card, said modified local copy being overwritten by any update published by said publisher based on an on-going subscription.

62. The system of Claim 25, wherein a subscriber of said publisher's address card can choose to un-subscribe at any time.

63. A method for providing a digital address card service through an Internet based network which has a plurality of registered users, wherein each of said users can be a publisher to publish his address card to others and/or a subscriber to subscribe a published address card from others, said method comprising the steps of:

5 a publisher configuring an address card, said address card having multiple views, each of said views being associated with a different label which, when being clicked, brings said associated view to the front of screen;

 designating a sharing relationship to one or more groups of subscribers; and

 publishing said address card to a number of selected subscribers based on
10 designated sharing relationships.

64. The method of Claim 63, wherein said step of configuring further comprises the step of:

 entering said publisher's contact information from a central entry page;

 wherein any of said entered contact information is automatically populated to
15 one or more of said views.

65. The method of Claim 64, further comprising the step of:

 designating one of said views as a default view.

66. The method of Claim 63, wherein each of said views can be published separately or in combination with any other one or more of said views.

67. The method of Claim 63, wherein each of said views is based on a template containing a set of predefined fields.

5 68. The method of Claim 63, wherein said step for configuring comprises the step of:

 customizing one or more of said views.

69. The method of Claim 63, wherein said step for configuring further comprises the step of:

 setting preferences.

10 70. The method of Claim 63, wherein said step for configuring further comprising the step of:

 adding said publisher's self-expression elements into said address card.

71. The method of Claim 63, wherein said step for configuring further comprising the step of:

15 setting parental control to prevent children from handling said address card.

72. The method of Claim 63, wherein said publisher can view any of:

 an accepted subscription;

a rejected subscription; and

a pending subscription.

✓
74. The method of Claim 72, further comprising the step of:

un-publishing to one or more of said subscribers.

5 75. The method of Claim 63, wherein said step for publishing is any of:

sending an pre-populated e-mail;

invoking an immediate popup from an instant messaging system;

highlighting an indicator in an online address book; and

invoking a popup at sign-on.

10 76. The method of Claim 63, wherein any of said subscribers who receive a publish offer may take any action of:

rejecting said offer;

accepting said offer by subscribing said publisher's address card; and

15 accepting said offer by subscribing said publisher's address card and at the same time reciprocating with a publish of said subscriber's address card to said publisher.

77. The method of Claim 76, wherein a recipient of a publish offer may choose from preferences to automatically subscribe any address card being offered.

78. The method of Claim 63, wherein said step for publishing comprises the step of:

when said publisher chooses to publish to a recipient who is not a registered
5 member of said Internet based network, sending a notification along with an image of said publisher's address card to said recipient via e-mail, said notification comprising a first link which enables said recipient to subscribe future modifications of said publisher's address card.

79. The method of Claim 78, wherein said notification comprises a second link which
10 enables said recipient to reciprocate said publisher with contact information.

80. The method of Claim 63, wherein said step for configuring further comprises the steps of:

modifying said address card; and

configuring update policies.

15 81. The method of Claim 80, wherein said step for configuring update policies further comprises the step of:

choosing whether a modification on said publisher's address card triggers a notification to said selected subscribers.

82. The method of Claim 81, wherein said notification comprises details of changes made to said publisher's address card.

83. The method of Claim 63, wherein said address card is incorporated into said publisher's address book from which said selected subscribers' e-mail addresses are
5 extracted, and wherein said address book comprises a virtual button, by selecting a screen name from said address book and then clicking said virtual button, said publisher is prompted to a screen of an editable address card where said publisher completes the contact information of a new contact associated with said selected screen name.

10 84. The method of Claim 83, wherein when said publisher publishes to a recipient not in said publisher's address book, said recipient's e-mail address is automatically added into said publisher's address book.

85. The method of Claim 83, wherein when said publisher deletes any of said subscribers from said publisher's address book, said deleted subscriber's
15 subscription to said publisher's address card is terminated.

86. The method of Claim 85, wherein when a subscriber of said publisher's address card chooses to delete said publisher's address card, said subscriber's subscription to said publisher's address card is terminated.

87. The method of Claim 83, wherein said screen of an editable address card
20 comprises:

a drop down menu for setting a group for said new contact;

choosing from preferences to automatically publish said publisher's default address card by sending a publish offer to anyone included in said publisher's address book.

92. The method of Claim 83, wherein information in said publisher's address card is
5 accessible from a current subscriber's address book either online or offline.

94. The method of Claim 83, wherein separately subscribed views of said publisher's address card are merged as a single entry in a subscriber's address book.

95. The method of Claim 83, further comprising the step of:

detecting a duplicate entry of said publisher's screen name in a subscriber's
10 address book;

wherein when said duplicate entry is detected, said subscriber can choose to overwrite said duplicate entry with said publisher's address card or keep said publisher's address card as a separate entry.

96. The method of Claim 83, wherein when a subscriber forwards said publisher's
15 address card to a third party, a one-time copy of said publisher's address card is added to said third party's address book upon said third party's acceptance.

97. The method of Claim 96, wherein said step for configuring further comprising the step of:

a save button for saving entered data; and

a hyperlink which takes said publisher to a screen for designating which view of said publisher's address card to be shared with said new contact.

88. The method of Claim 83, further comprising the steps of:

5 adding one or more subscribers of said address card into said address book;
and

removing one or more subscribers of said address card from said address book.

89. The method of Claim 88, wherein any registered user of said network who
10 receives a copy of said publisher's address card in an e-mail can save said address card into said any registered user's address book by clicking an accept link embedded in said e-mail.

90. The method of Claim 88, wherein any registered user of said network who receives a copy of said publisher's address card in an e-mail can save said address
15 card into said any registered user's address book and at the same time share his own address card with said publisher by clicking an accept and share link embedded in said e-mail.

91. The method of Claim 83, further comprising the step of:

setting a parameter on said address card for preventing a subscriber from forwarding said address card.

98. The method of Claim 63, wherein a subscriber of said publisher's address card can modify a local copy of said address card, said modified local copy being
5 overwritten by any update published by said publisher based on an on-going subscription.

99. The method of Claim 63, wherein a subscriber of said publisher's address card can choose to un-subscribe at any time.